

REMARKS

Claims 1 - 6, and 8 - 28 remain pending in this application. Claims 14, 15, 22 and 24 - 28 have been previously withdrawn. No new matter has been added. In view of the following remarks, it is respectfully submitted that claims 1 - 6, 8 - 13, 16 - 21 and 23 of the presently pending claims are allowable.

Claims 1 - 6 and 8 - 12 stand rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,461,321 to Quinn ("Quinn '321") in view of U.S. Patent No. 7,048,722 to Quinn ("Quinn '722"). 11/1/07 Office Action, p. 2.

Claim 1 recites a distal tip for a catheter comprising "first and second lumens extending therethrough, wherein in an operative configuration, the first and second lumens are coupled to first and second lumens of a dual lumen catheter" and "a partition separating the first lumen from the second lumen" in combination with "a first opening fluidly connected to the first lumen for inflow of fluid from a body lumen into which the distal tip is inserted in a normal mode of operation and for outflow of fluid thereinto in a reverse mode of operation" and "a second opening fluidly connected to the second lumen, the second opening being disposed distally from the first opening and separated therefrom by a selected stagger distance for outflow of fluid therefrom when the catheter is in the normal mode of operation and for inflow of fluid from the body lumen in a reverse mode of operation" along with "a contoured flow deflection element directing, in the reverse mode of operation, outflow from the first opening away from the second opening" and "a contoured outlet portion of the second opening reducing an outflow velocity therefrom in the normal mode of operation" and "*side walls extending away from the partition on the same side as the first opening to create a channel between the first opening and the contoured flow deflection element.*"

The Examiner states that Quinn '321 discloses the device substantially as claimed, but does not disclose "*side walls extending away from the partition on the same side as the first opening to create a channel between the first opening and the contoured flow deflection element,*" as recited in claim 1. 11/1/07 Office Action, pp. 3-4. The Examiner cites Quinn '722 to cure this deficiency. *Id.* Specifically, the Examiner refers to Fig. 35 of Quinn '722 to show side walls extending up from the partition to create a channel between the first opening and the contoured deflection element. *Id.*

It is respectfully submitted that Quinn '722 does not disclose side walls that create a channel between the first opening and the contoured flow deflection element. Rather, the side walls to which the Examiner refers are side walls *of* a first opening, not side walls *between* a first opening and a contoured flow deflection element. Quinn discloses a catheter 7, shown in Figs. 30-37, which is substantially similar to a catheter 5, shown in Fig. 15-22, except that a tube 130 of the catheter 7 is a triple lumen tube while a tube 30 of the catheter 5 is a dual lumen tube. *Id.* at col. 7, ll. 38-58. Fig. 35 is a sectional view taken along line 35-35 of Fig. 30. *Quinn '722*, col. 5, ll. 15-16. Line 35-35 in Fig. 30 is drawn through the middle of the port 127 of the catheter 7. Thus, the side walls depicted in Fig. 35 are the side walls of the port 127. Quinn '722 describes the port 27, which corresponds to port 127 of catheter 7, as "slop[ing] gradually on both sides to the surface of the septum." *Id.* at col. 6, ll. 63-66. As the sectional view of line 35-35 is in the middle of portion 127, a more accurate sectional of the catheter 7 at a point between the port 127 (the first opening) and the bolus portion 36 (the contoured flow deflection element) would be the sectional along line 36 - 36 shown in Fig. 30 and as depicted in Fig. 36. Fig. 36 clearly shows that there are no side walls extending from the septum on the side of the port 127 forming any kind of channel between the port 127 and the bolus portion 136.

Therefore, it is respectfully submitted that neither Quinn '321 nor Quinn '722, either alone or in combination, show or suggest "side walls extending away from the partition on the same side as the first opening *to create a channel between the first opening and the contoured flow deflection element*," as recited in claim 1. Accordingly, it is respectfully submitted that claim 1 is not rendered obvious by Quinn '321 in view of Quinn '722 and that the rejection to claim 1 should be withdrawn. Because claims 2 - 6 and 8 - 12 depend from and include all of the limitations of claim 1, it is respectfully submitted that these claims are also allowable.

Claims 16 - 21 and 23 also stand rejected under 35 U.S.C. § 103(a) as unpatentable over Quinn '321 in view of Quinn '722. *11/1/07 Office Action*, p. 6.

Claim 16 recites a flow control tip for a multi-lumen catheter comprising "an attachment portion adapted to fluidly connect to a distal portion of a catheter" in combination with "a contoured bolus defining at least a portion of an inlet and an outlet of the distal tip, the inlet and outlet being separated by a partition, so that, when coupled to the catheter, the inlet is coupled to a first one of the catheters lumens and the outlet is coupled to a second one of the catheters lumens, and a flow deflector directing fluids exiting the inlet in a first mode away from the outlet and *side walls extending away from the partition on the same side as the inlet to create a channel*

between the inlet and the bolus, wherein the contoured bolus defines a specified stagger distance between the inlet and the outlet."

For the same reason as discussed above in regard to claim 1, it is respectfully submitted that claim 16 is not rendered obvious over Quinn '321 in view of Quinn '722. Specifically, neither Quinn '321 nor Quinn '722 show or suggest "*side walls extending away from the partition on the same side as the inlet to create a channel between the inlet and the bolus,*" as recited in claim 16. Therefore, it is respectfully submitted that claim 16 is allowable. Because claims 17 - 21 and 23 depend from and include all of the limitations of claim 16, it is respectfully submitted that these claims are also allowable.

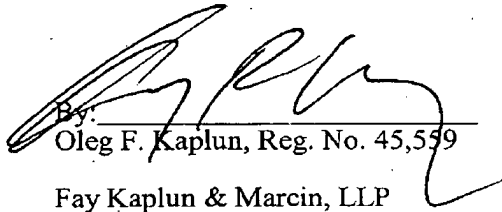
Claim 13 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Quinn '321 in view of Quinn '722 and in further view of U.S. Patent No. 5,171,216 to Dasse et al. ("Dasse").
11/1/07 Office Action, p. 8.

As discussed above, it is respectfully submitted that claim 1 is allowable. Because claim 13 depends from and includes all of the limitations of claim 1, it is respectfully submitted that this claim is also allowable.

In light of the foregoing, Applicants respectfully submit that all of the pending claims are in condition for allowance. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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